

Claims

1. An alkaline, pulverised active substance for the deacidification of printed matter, in particular bound books, wherein the active substance is distributed over the printed matter by means of air, characterised in that the active substance comprises a mixture of at least two dried inorganic salts, the anionic parts of the salts having a relatively low acidity constant, in that a salt having relatively low water affinity is the main constituent of the active substance and in that the at least one further salt has relatively high water affinity.
2. An alkaline active substance according to claim 1, characterised in that the salt having high water affinity is potassium carbonate and the salt having relatively low water affinity is potassium hydrogen carbonate, in that potassium carbonate is present in the active substance in an amount of 7% to 15% by weight and in that the active substance has an average particle size of 20 µm to 30 µm and a residual moisture content of less than 20% by weight.
3. An alkaline active substance according to claim 1, characterised in that the salt having high water affinity is potassium carbonate and the salt having relatively low water affinity is potassium hydrogen carbonate, in that potassium carbonate is present in the active substance in an amount of 0.1% to 5% by weight and in that the active substance has an average particle size of 28 µm to 35 µm and a residual moisture content of less than 15% by weight.

4. An alkaline active substance according to either one of claims 2 and 3, characterised in that an addition of potassium hydrogen phosphate or ammonium thiocyanate is present in the active substance in an amount of 1% to 5% by weight.
5. An alkaline active substance according to any one of claims 2 to 4, characterised in that 0.5% to 2% by weight of polystyrene balls with a diameter of 0.2 mm to 2 mm is added to the active substance.
6. A device for the deacidification of printed matter, in particular printed matter which can be fanned out, such as bound books, by means of air streams laden with alkaline active substances in a receiver having supporting parts for the insertion of printed matter, characterised in that the laden air streams are conveyed via an air diffuser (15) comprising an outflow plate (16) and air outlets (17), where they emerge as flat jets (S), in that the printed matter (5, 6') can be acted upon by at least two of these parallel, staggered flat jets (S), in that the flat jets (S) are at least substantially parallel to the lateral supporting parts (2, 2') and are displaceable relative thereto in a plane in such a manner that a staggered row (R) of parallel flat jets (17) covers the printed matter completely and uniformly and deposits particles of the active substance in the printed matter.
7. A device according to claim 6, characterised in that it is arranged in a case (10) tightly closable by a hinged cover (11) and provided with feed and discharge lines (23) and connected to auxiliary units (22).

8. A device according to claim 6 or 7, characterised in that the air diffuser (15) is box-shaped.
9. A device according to claim 8, characterised in that the air diffuser (15) is arranged in a horizontal plane and is laterally displaceable (+v, -v) above the supporting parts (2, 2').
10. A device according to claim 9, characterised in that the air diffuser (15) is arranged above the supporting parts (2, 2') and in that the supporting parts (2, 2') together with their base frame (8) are laterally displaceable in a horizontal plane.
11. A device according to claim 6, characterised in that a fan (19a) is provided which circulates the laden air stream in a main flow (H).
12. A device according to claim 11, characterised in that a further fan (19b) is provided which conveys a portion of the laden air stream via a filter (38) in a secondary flow (N₀) and removes the active substance (K) therefrom.
13. A device according to claim 6, 11 or 12, characterised in that a portion of the laden air stream is conveyed in a secondary flow (N₁) via a filter (38') and via a dehumidifying chamber (43).
14. A device according to claim 13, characterised in that the secondary flow (N₁') is fed into the main flow (H).

15. A device according to claims 6 and 13, characterised in that a powder inlet (32') is provided and in that the latter opens into a secondary flow (No') in a mixing nozzle (50).
16. A device according to claim 6, characterised in that it is connected to a thermal dehumidifying and heating system (22).